

REMARKS/ARGUMENTS

Reconsideration of the present application is respectfully requested. Claims 1, 3, 12, 23, 24, 27, 28, 30, and 32 have been amended. Claims 1-32 are presently pending. Claims 1, 3, 12, 23, 24, 27, 28, 30, and 32 are independent.

In the Office Action dated November 4, 2004, claims 3-23 and 27-32 are objected to as being dependent upon a rejected base claim but indicated as allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. As suggested in the Action, claims 3, 12, 23, 27, 28, 30, and 32 have been rewritten in independent form and should therefore be in condition for allowance. Claims 4-11 depend directly or indirectly from claim 3. Claims 13-22 depend directly or indirectly from claim 12. Claim 29 depends from claim 28. Claim 31 depends from claim 30. Accordingly, dependent claims 4-11, 13-22, 28 and 31 should also be in condition for allowance.

In the Action, claims 1, 2, and 24-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,666,978 to Renner (the "Renner '978 patent"), in view of U.S. Patent No. 1,998,087 to Koch, Jr. (the "Koch, Jr. '087 patent"), and further in view of U.S. Patent No. 4,958,095 to Uchida et al. (the "Uchida et al. '095 patent"). Claim 24 is rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 1,476,776 to Stamm et al. (the "Stamm et al. '776 patent"). However, Applicant respectfully submits that none of the prior art references of record, when considered singly or in combination, show or suggest the use of the structure recited in the claims.

Amended claim 24 recites an air-cooled weather-protected motor including, among other things, a vented protective motor enclosure. The enclosure includes a primary motor housing presenting spaced apart air intake openings through which ambient air is induced into the motor housing. The enclosure also includes an air intake box removably coupled to the motor housing in association with at least one of the intake openings. The intake box is configured to filter ambient air drawn into the enclosure. The intake box includes at least one air inlet. The intake box defines at least one deviated passageway that fluidly communicates the inlet with the at least one intake opening. The intake box is removably supported on the motor housing. The intake box further defines at least two bends in the at least one deviated passageway.

The structure recited in amended claim 24 enables an air-cooled weather-protected motor with several advantages. One advantage of the claimed weather-protected motor is that it provides a single construction particularly useful in two applications, one of which utilizes just the primary motor housing and the other of which combines an intake box removably supported on the housing to provide additional filtration and protection. In one particular commercial application, the inventive construction can be used to convert a motor rated to NEMA Type I standards to a motor rated to NEMA Type II standards. The more stringent standards of the NEMA Type II motor generally require, in addition to NEMA Type I requirements, a filtration box with passageways that provide low velocity and abrupt changes in direction. The advantageous motor is therefore obtained by using an intake box that defines a deviated passageway with at least two bends. In this manner,

the inventive motor enables Type I motor housings to be used in Type I or Type II motor applications.

Amended claim 1, similar to claim 24, claims a weather protected motor including, among other things, a stator and a rotor rotatable relative to the stator. The motor further includes a vented protective motor enclosure enclosing the stator and rotor while permitting airflow thereto. The enclosure includes a primary motor housing in which the stator and rotor are at least substantially housed. The motor housing presents a plurality of spaced apart air intake openings through which ambient air is induced into the motor housing when the rotor is rotated. The enclosure further includes an air intake box removably coupled to the motor housing in association with at least one of said intake openings. The intake box is configured to generally filter ambient air drawn into the enclosure. The intake box includes at least one air inlet and defines at least one deviated passageway fluidly communicating the inlet and said at least one intake opening. The intake box defines at least two bends in the at least one deviated passageway. The motor further includes a coupling mechanism that removably couples the intake box to the motor housing. The coupling mechanism includes an adapter plate and at least one hook latchingly engaging the adapter plate to support the intake box on the motor housing. The structure recited in claim 1 enables a weather-protected motor that provides advantages similar to the advantages provided by claim 24.

Turning now to the prior art references of record, the Stamm et al. '776 patent discloses an air cooled electric motor with an armature 16 rotating within magnets 22 secured to a cylindrical wall 12. A rotating shaft 17 carries and is driven by the armature 16 and in turn drives

fans 41,42. Surrounding the armature 16, magnets 22, wall 12, and fans 41,42 is a motor frame 5. The motor frame 5 has opposed inlet openings 29 and 30 and is further surrounded by a casing 2. The frame 5 is mounted within the casing 2 with diaphragms 70,71. The head end 63 and diaphragm 70 partially surround an air passage. A felt pad 77 resides in the air passage. The head end 63 of casing 2 includes openings 76 for air to travel from outside of the casing 2 into the air passage. The inlet opening 29 allows air to flow from the air passage into the motor frame 5.

The Stamm et al. '776 patent fails to show or suggest the use of structure recited in amended claims 1 and 24. For example, the Stamm et al. '776 patent fails to show or suggest an intake box defining at least one deviated passageway that fluidly communicates the inlet and at least one intake opening. FIG. 1 of the Stamm et al. '776 patent shows that the removable head end 63 bounds part of an air passage, but does not define the passage. Moreover, the head end 63 does not define a deviated passage. The resulting flow path from the air inlet opening 76 to the inlet opening 29 has a direction that deviates, but this deviated path is not defined by the head end 63. To the contrary, the head end 63 presents a flat inner surface that does not deviate between the openings 76 and the opening 29.

The Stamm et al. '776 patent also fails to show or suggest an intake box that defines at least two bends in the at least one deviated passageway. Again, the head end 63 presents a flat inner surface between openings 76, 29. The head end 63, therefore, cannot define a passageway with at least two bends.

Turning to the prior art references used in rejecting independent claims 1 and 24, the Renner '978 patent discloses an inlet cover for an automobile alternator. The cover 52 has a side 56 with holes 58. The cover 52 is held to alternator 14 with bolt 59 and clips 66. The cover 52 and end wall 44 bound an internal space. Ducts 50,51 provide fluid communication between that space and the internal space of the alternator 14.

The Renner '978 patent fails to show or suggest the use of structure recited in amended claims 1 and 24. For example, the Renner '978 patent fails to show or suggest an intake box defining at least one deviated passageway that fluidly communicates the inlet and at least one intake opening. The Renner '978 patent, similar to the Stamm et al. '776 patent, shows the cover 52 with a flat inner surface that partially bounds an internal space. Therefore, the cover 52 does not define a passageway communicating the holes 58 and ducts 50,51 and it does not present a deviated surface that could define a deviated passageway communicating the holes 58 and ducts 50,51. The Renner '978 patent also fails to show or suggest an intake box that defines at least two bends in the at least one deviated passageway. Rather, the cover 52 includes a flat sheet 54 that cannot define a passageway with at least two bends.

The Koch, Jr. '087 patent is cited for its asserted disclosure of an intake box that is configured to generally filter ambient air drawn into an enclosure and of the machine being a motor. The Koch, Jr. '087 patent discloses a generator with a yoke 10 and openings 16 at a drive end of the yoke 10. The openings 16 allow fluid communication of the generator interior and atmosphere. The openings 16 are surrounded by a circumferentially extending filter pad 17.

The Koch, Jr. '087 patent, similar to the Renner '978 patent, fails to show or suggest the use of structure in amended claims 1 and 24. The Koch, Jr. '087 patent simply fails to show or suggest a removable intake box defining a deviated passageway.

The Uchida et al. '095 patent is cited for its asserted disclosure of a machine that "can be made as a starter for the purpose of reducing cost." The Uchida et al. '095 patent discloses a starter 30 used with an internal combustion engine 2.

The Uchida et al. '095 patent also fails to show or suggest the use of structure in amended claims 1 and 24. The Uchida et al. '095 patent, similar to the Koch, Jr. '087 patent, fails to show or suggest a removable intake box defining a deviated passageway.

In view of the foregoing, Applicant submits that independent claims 1 and 24 recite structure not shown or suggested in the prior art references of record. Claim 2 depends from claim 1, and claims 25 and 26 depend from claim 24. These dependent claims recite additional features of the invention not shown or suggested by the prior art.

Therefore, the present application should now be in condition for allowance and such allowance is respectfully requested. Should the Examiner have any questions, please contact the undersigned at (800) 445-3460.

A check in the amount of \$1200.00 accompanies this Amendment for the 6 additional independent claims. The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 19-0522.

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Respectfully submitted,

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